

WHAT IS CLAIMED IS:

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1. An image processing apparatus, comprising:  
an input unit successively receiving, as inputs, image signals  
representing pixels;  
a determining unit determining whether an input signal represents  
a white pixel; and  
an error diffusion processing unit performing different processes  
depended on whether the input signal represents a white pixel or not.
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2. The image processing apparatus according to claim 1, wherein  
said error diffusion processing unit outputs a signal representing a  
white pixel and does not perform calculation of an error and subsequent  
distribution of the error to pixels, when the input signal represents a white  
pixel.
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3. The image processing apparatus according to claim 2, wherein  
said error diffusion processing unit performs error diffusion process  
using a threshold value smaller than a central value of possible values of  
said image signal.
4. The image processing apparatus according to claim 2, wherein  
said error diffusion processing unit changes the threshold value in  
accordance with a magnitude of the signal input through said input unit.
5. The image processing apparatus according to claim 2, wherein  
said error diffusion processing unit performs a process of subtracting  
a prescribed value before distributing a calculated error, and adding the  
prescribed value before performing thresholding.
6. An image processing apparatus, comprising:  
an input unit successively receiving, as inputs, image signals  
representing pixels;

5 a determining unit determining whether an input signal represents a black pixel; and  
an error diffusion processing unit performing different processes depended on whether the input signal represents a black signal or not.

5 7. The image processing apparatus according to claim 6, wherein said error diffusion processing unit outputs a signal representing a black pixel and does not perform calculation of an error and subsequent distribution of the error to pixels, when the input signal represents a black pixel.

5 8. A method of image processing, comprising the steps of:  
successively inputting image signals representing pixels;  
determining whether an input signal represents a white pixel or a black pixel; and  
5 error diffusion process step performing different processes dependent on whether the input signal represents either white or black pixel or not.

9. A recording medium recording an image processing program to realize the method of image processing according to claim 8.

10. A method of image processing, comprising the steps of:  
successively inputting image signals representing pixels;  
determining whether an input signal represents a white pixel; and  
error diffusion process step performing different processes  
5 dependent on whether the input signal represents a white pixel or not.

10 11. The method of image processing according to claim 10, wherein in said error diffusion process step, when the input signal represents a white pixel, a signal representing a white pixel is output, and calculation of an error and subsequent distribution of the error to pixels are not performed.

12. The method of image processing according to claim 11, wherein in said error diffusion process step, error diffusion process is performed using a threshold value smaller than a central value of possible values of said image signal.

5 13. The method of image processing according to claim 11, wherein in said error diffusion process step, a threshold value is changed in accordance with a magnitude of the signal input in said input step.

10 14. The method of image processing according to claim 11, wherein in said error diffusion process step, a process is performed in which a prescribed value is subtracted before distribution of calculated error, and the threshold value is added before thresholding.